

WHAT IS CLAIMED IS:

1. A process for powder coating, comprising applying a powder to a conductive surface or to a layer on said surface to form a coating on said surface or layer, wherein the powder is formed by aggregating and coalescing particles in an aqueous dispersion, said particles including resin particles.
2. The process of claim 1, wherein the powder is heated to melt the powder onto the conductive surface or layer, thereby forming said coating.
3. The process of claim 1, wherein the powder is cured to form said coating.
4. The process of claim 1, wherein said conductive surface is a metallic surface.
5. The process of claim 1, wherein said powder has a volume average diameter of less than 30 microns.
6. The process of claim 5, wherein said powder has a volume average diameter of 3 to 20 microns.
7. The process of claim 1, wherein during said aggregating said resin particles are aggregated with colorant to form powder particles comprising at least one resin and at least one colorant.
8. The process of claim 7, wherein said at least one colorant is at least one pigment.
9. The process of claim 1, wherein during said aggregating said resin particles are aggregated with at least one of fillers and leveling agents to form powder particles comprising at least one resin and at least one of fillers and leveling agents.
10. The process of claim 1, wherein the resin particles comprise at least one resin selected from the group consisting of epoxy resins, polyester resins, acrylic resins, polyamide resins, polyolefin resins, plasticized PVC, polyester and poly (vinylidene fluoride), and ionomers, and copolymers and mixtures thereof.
11. The process of claim 1, wherein the resin particles comprise at least one curable resin.
12. The process of claim 11, wherein said powder further comprises at least one curing agent,

said process further comprising activating the curing agent to initiate curing of said powder, and allowing said powder to cure.

13. A process for powder coating, comprising:

a) forming powder by:

i) aggregating, in an aqueous dispersion, particles including at least resin particles to form aggregated particles;

ii) coalescing said aggregated particles to form fused particles; and

iii) removing said fused particles from said aqueous dispersion to form said powder; and

b) applying said powder to a conductive surface or to a layer on said surface to form a coating on said surface or layer.

14. A process for forming a powder coating applicator containing powder for use in powder coating, comprising:

a) aggregating, in an aqueous dispersion, particles including at least resin particles to form aggregated particles;

b) coalescing said aggregated particles to form fused particles;

c) removing said fused particles from said aqueous dispersion to form powder; and

d) loading the powder into an applicator for use in powder coating.

15. The process of claim 14, wherein during said aggregating the resin particles are aggregated with at least one colorant.

16. The process of claim 14, wherein during said aggregating the resin particles are aggregated with at least one of fillers and leveling agents.

17. The process of claim 14, wherein the resin particles comprise at least one curable resin.

18. The process of claim 17, wherein during said aggregating the resin particles are aggregated with at least one curing agent.

19. The process of claim 1, wherein said powder has a volume average diameter less than 30 microns.

20. A powder coating applicator formed by the process of claim 14.